



# TEACHING

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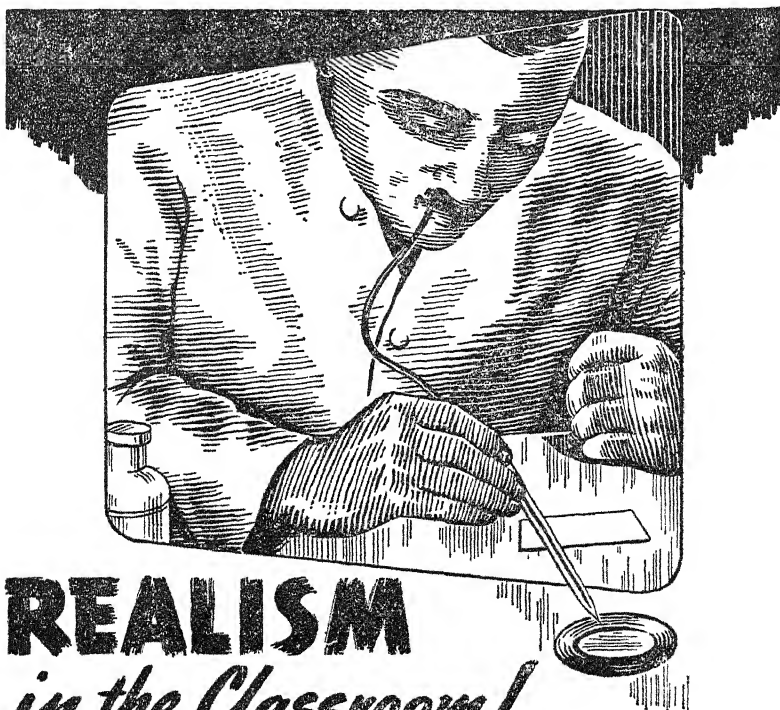
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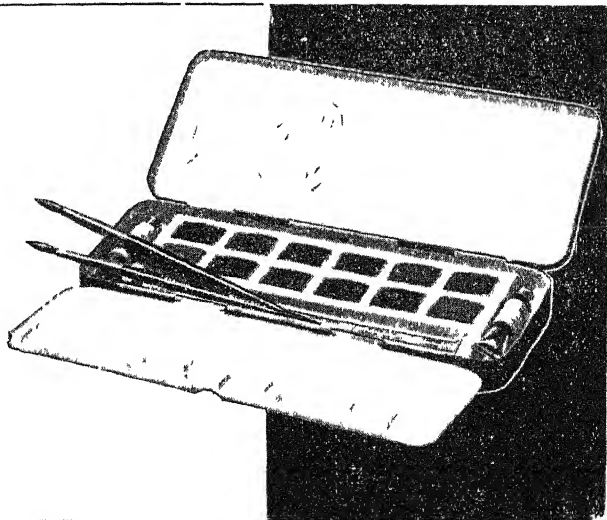
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*Editor:* - - M. S. H. THOMPSON

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## EDITORIAL

'Plain, straightforward writing is the ideal to be aimed at, in educational journalism as in journalism in general.' So wrote the last Editor in his introduction to the fifth volume of *TEACHING*. The present Editor has tried, during the six years that he has been in charge, to act on this advice. As already announced, he will cease to be Editor after the present number, his twenty-fifth, and he takes this opportunity to thank his contributors and reviewers for their very practical support, the authorities of the Oxford University Press for their kindly and efficient help in many directions and the Wesley Press for their excellent proofs, which it has always been a pleasure to read.

Editing *TEACHING* has been an interesting and a valuable experience, and it is with sincere regret that the Editor gives up his post, circumstances no longer permitting him to continue in charge. He bids his readers farewell, and is glad to be able to announce that Mr H. V. Hampton succeeds him.

## POETRY AND VERSE

Literature is commonly classified as prose and poetry. But this is misleading; for imaginative prose often rises to the level of poetry, and a good deal of what is written in the form of poetry is not poetry at all. Moreover, prose is a certain literary form, whereas poetry is a spirit that may express itself in more than one form. The correct antithesis is prose and verse, which are two very different literary forms. It is true that verse is the usual form taken by poetry—that is, poets usually (though not

invariably) write their poems in verse; but verse is by no means identical with poetry.

### *Verse*

What, then, is verse? Verse is generally printed in a particular way, so that you can tell it from prose at a glance. But it does not much matter how it is printed, for it is the ear, and not the eye, which is the true test of verse; for when verse is read aloud, it sounds quite different from prose. Just listen to these two passages, both printed in prose form:

- A. Each horseman, fast arrayed by trumpet and torch, drew his battle blade; and every charger neighed, furious, to join the dreadful revelry.
- B. By torch and trumpet fast arrayed, each horseman drew his battle blade, and furious every charger neighed to join the dreadful revelry.

These two passages are exactly the same in meaning; in fact the very words in both, though differently arranged, are the same. Yet how differently the two passages sound when read! If you can *hear* this difference, you will soon be able to tell the difference between verse and prose; for A is prose, and B is verse. As you read B, can you not hear the regular beat of sound, like the regular tramp of soldiers marching? There is nothing like this regular swing in A, the prose passage. If it is exaggerated, it becomes the 'sing-song' of school-children reciting poetry.

How is this lilt, this regular sound-beat, produced? You will see that B consists of the same words as A, only differently arranged. In B they are so arranged that the accented syllables (which we naturally stress in speaking) come at regular intervals of time. For example, in

By torch and trumpet fast arrayed

every second syllable is pronounced more emphatically than the others. It is this arrangement of accented syllables that gives the line that regular sound-beat. To make this clear to the eye as well as to the ear, B is usually printed thus, in verse form:

By torch and trumpet fast arrayed,  
Each horseman drew his battle blade,  
And furious every charger neighed  
To join the dreadful revelry.

This regular recurrence of intervals of light and strong sounds, like the beat of the drum regulating the movements of a dance, is called *metrical rhythm*, or *metre*; and metrical rhythm is the chief, the essential, characteristic of verse as distinguished from prose. Prose, it is true, has a rhythm of its own; but it is free and irregular

and bound by no rigid rules. It is nothing like the regular, or metrical, rhythm of verse, which is governed by strict rules of prosody.

In passage B, printed, as above, in verse form, you can notice two other characteristics of verse which distinguish it from prose. One is rhyme; for you will see that the words at the ends of the first three lines (*arrayed*, *blade*, *neighed*) rhyme together. The other is the stanza form, stanzas being sections of the same pattern. B, in the verse form, is a stanza—one of the stanzas of Campbell's poem, *Hohenlinden*. It consists of four lines, the first three rhyming, and the metre depends on every second syllable in each line being stressed or accented. There are many patterns of stanzas, differing in length (number of lines), metre and rhyme schemes.

According to the rules of prosody (the science of versification), each accented syllable marks one metrical division of a line of verse. These metrical divisions are called *feet*. A metrical foot consists of one accented syllable along with one or two (not more) unaccented syllables. To make this plain, we may mark off these divisions, or feet, by vertical lines, thus:

By tórch/ and trúm/pet fást/ arráyed./

Now you can see clearly that there are four feet in this line and that each foot consists of two syllables the second of which is accented.

There are different kinds of metrical rhythm, called *metres*, according to the number of syllables in the foot and the place of the accent. The following lines will serve as examples of the four chief metres of English verse:

(a) How ráre/ly reá/son guídes/ the stúb/born chóice./

Each foot is of two syllables, with the accent on the second syllable. (Iambic metre.)

(b) Dównward/ thróugh the/ évening/ twílight./

Each foot is of two syllables, with the accent on the first syllable. (Trochaic metre.)

(c) There are máí/ dens in Scót/land more lóve/ly by fár./

Each foot is of three syllables, with the accent on the third syllable. (Anapaestic metre.)

(d) Toúch her not/ scórnfully/  
Thínk of her/ móurnfully./

Each foot is of three syllables, with the accent on the first syllable. (Dactylic metre.)

Note the different movements of these four metres: (a) is a slow, stately walk; (b) is a lilting trot; (c) is a gallop; (d) is a dance.

Verse, then, as a literary form, is characterized by metrical rhythm, rhyme and stanza-forms or verse-patterns. Of these three, metrical rhythm is essential. You cannot have verse without it. But the other two, though usual, are not essential; for you can have verse without either. For example, what is called *blank verse* (in which Milton's *Paradise Lost* is written) has neither; but it is in metrical rhythm throughout. So verse may be defined as metrical speech.

### *Poetry*

And what is poetry? Ah! that is a question not at all easy to answer. Many have tried, but no one has yet succeeded in formulating a satisfactory definition of poetry. Shelley said: 'Poetry is the expression of the imagination' and 'A poem is the very image of life expressed in its eternal truth.' Wordsworth said: 'Poetry is the breath and finer spirit of all knowledge; it is the passionate expression which is in the countenance of all science.' Mr Lascelles Abercrombie said: 'Poetry is the expression of imaginative experience, valued simply as such, in the communicable state given by language which employs every available and appropriate device.' Mr G. F. Bradby says: 'Poetry is an emotional and metrical appeal to the understanding, which awakens in us, in some form or other, a consciousness of beauty.' Mr Drinkwater adopts Coleridge's definition, saying: 'Poetry is, in its naked being and apart from its cause and effect, a certain use of words; and, remembering this simple fact, there has been one perfect and final answer to the question, "What is poetry?" It was Coleridge's: "*Poetry—the best words in the best order*".'

All these statements, stressing as they do most important truths about poetry, are illuminating; but can we accept any one of them as a completely satisfactory definition of poetry? It still seems to refuse to 'abide our question'. Yet we need not despair. Are not most of the important realities of life indefinable? We cannot define 'love'; yet we know it by experience—we love, and are loved. We cannot define beauty; yet we know what we mean by it, and can recognize it when we see it. We cannot define 'life'; yet we live, and never confuse the living with the dead. So with poetry. We can learn to recognize it and to draw pleasure and inspiration from it without being able to compress it into any precise and logical definition.

The three essential characteristics of poetry are *imagination*, *emotion* and *music*. Where these are found to any marked degree in words, there is poetry. Poetry is the product and expression of imagination; it arises in emotion in the poet and rouses emotion in the reader; and it is essentially musical, for, while prose talks, poetry sings.

Poetic imagination is vision. The poet is a seer; that is a 'see-er', one who sees. He is a man of vision. He can see hidden truths which others cannot see, or may not see so clearly without his help. The matter-of-fact, unimaginative man is thus summed up in Wordsworth's description of Peter Bell:

A primrose by the river's brim  
A yellow primrose was to him,  
And it was nothing more.

But to the poet Wordsworth himself it was much more than that, for he says:

To me the meanest flower that blows can give  
Thoughts that do often lie too deep for tears.

As Shelley said: 'Poetry lifts the veil from the hidden beauty of the world, and makes familiar objects to be as if they were not familiar.' The true poet can *add* to common things

the gleam,  
The light that never was on sea and land,  
The consecration and the poet's dream.

Emotion is the second essential of poetry. Prose is logical; poetry is emotional. Prose speaks to the head; poetry touches the heart. Prose presents truth in the cold light of reason; 'poetry is truth carried alive into the heart by passion'. 'Poetry', said Wordsworth, 'thinks and feels in the spirit of human passions'; and 'poetry . . . is the impassioned expression which is on the countenance of all science'. A true poem begins and ends in emotion; for its origin is emotion in the poet, and its effect is emotion in the reader. For, as Wordsworth said, 'all good poetry is the overflow of powerful feelings'; and, as Byron said,

And feeling in the poet is the source  
Of others' feeling.

Music, the element of song, is the third essential of poetry; and this most strongly differentiates poetry from prose. Prose talks; poetry sings. A great deal of the charm of poetry lies in its melodious sound, and this is due to the poet's choice and ordering of his words and the rhythm in which the words are made to flow; for, as Poe said, 'poetry is the rhythmical creation of beauty'. The poet chooses his words, not only for their sense

and their suggestiveness, but also for their sounds. He arranges them like musical notes to produce harmonies of word-music. He 'articulates sweet sounds together'; and he will vary his music to suit his subject, so that the very sound of his lines will echo and reinforce their meaning.

We may say, then, that when speech becomes highly imaginative, emotional and musical, it becomes poetry.

### *Poetry and Verse*

Now, as we have said, poetry usually (though not invariably) takes the form of verse. But this does not mean that verse is necessarily poetry. It may be, or it may not be. Poetry generally dresses itself in verse; but the clothes are not the man who wears them. Or, to use a better figure, verse is the body, and poetry is the soul; but a body without a soul is a dead body. Unless verse, the outward form, is inspired by poetry, the inner spirit, it is mere verse, and nothing more. And there is much dead verse of this type.

How are we to tell a real poem from mere verse? Well, the essentials of poetry should be the touchstone. When presented with a supposed poem, we may apply this test: has it these three essentials? has it imagination, emotion and music? If it has, we may presume that it is poetry. If it has not, then it is mere uninspired verse.

Let us try this test on these two pieces of verse, studying them side by side:

- A. Mary had a little lamb,  
 Its fleece was white as snow;  
 And everywhere that Mary went  
 The lamb was sure to go.  
 It followed her to school one day;  
 That was against the rule;  
 It made the children laugh and play  
 To see a lamb at school.  
 And so the teacher turned it out;  
 But still it lingered near,  
 And waited patiently about  
 Till Mary did appear.  
 And then it ran to her and laid  
 Its head upon her arm,  
 As if it said, 'I'm not afraid—  
 You'll keep me from all harm.'  
 'What makes the lamb love Mary so?'  
 The eager children cry.  
 'Why, Mary loves the lamb, you know,'  
 The teacher did reply.

Now that is quite decent verse. The metre is regular, and the rhymes and the stanza form are correct. But is it poetry? Test it. Has it any imagination? Precious little. Does it stir any emotion? Hardly any; and what there may be is rather mere sentimentality than genuine feeling. Is there any music in it? Not a note; for the commonplace rhymes amount to nothing, and the metre is jog-trot. Of word-music there is none. What then? The whole is mere verse, with not a touch of poetry in it.

Now read this:

- B.     She dwelt among the untrodden ways,  
           Beside the springs of Dove;  
 A maid whom there were none to praise,  
           And very few to love;  
  
 A violet by a mossy stone,  
           Half hidden from the eye;  
 Fair as a star, when only one  
           Is shining in the sky.  
  
 She lived unknown, and few could know  
           When Lucy ceased to be;  
 But she is in her grave, and Oh!  
           The difference to me!

This, also, is correct verse, with regular verse metre, stanza form and rhyme. Is it anything more? It is very simple; but its simplicity is deceptive. There is unsuspected depth in it. Has it imagination? Yes; the poet has seen significance and beauty in the commonplace, and has revealed it to us. This obscure little country maid stands for something important. He brings this out partly by the simple but beautiful imagery in the second stanza. Is there music? The language is of the simplest—homely everyday words, mostly monosyllables; but they are suggestive and potent to stir the imagination. And the vowel-music is sweet and soft, though unobtrusive. Is there any emotion? Emphatically, yes; and most powerfully affecting emotion, because so restrained and so quietly expressed. Note the depth of feeling in the last two lines, with that deep, poignant note on the word 'grave', coming just where it does. Yes; this is undoubtedly poetry, and not mere verse.

Let us take another example. As a bit of practice in the 'appreciation' of poetry, read critically these two poems, comparing and contrasting them. The theme of both is virtually the same.

- A.     Sweet day, so cool, so calm, so bright,  
           The bridal of the earth and sky,  
           The dew shall weep thy fall tonight;  
           For thou must die.



Sweet rose, whose hue, angry and brave  
 Bids the rash gazer wipe his eye,  
 Thy foot is ever in its grave,  
     For thou must die.

Sweet spring, full of sweet days and roses,  
 A box where sweets compacted lie,  
 My music shows ye have your closes,  
     And all must die.

Only a sweet and virtuous soul,  
 Like seasoned timber, never gives;  
 But though the whole world turn to coal,  
     Then chiefly lives.

- B. This world is all a fleeting show,  
     For man's illusion given;  
 The smiles of Joy, the tears of Woe,  
 Deceitful shine, deceitful flow—  
     There's nothing true, but Heaven!
- And false the light on Glory's plume,  
     As fading hues of Even;  
 And Love and Hope, and Beauty's Bloom,  
 Are blossoms gathered for the tomb—  
     There's nothing bright, but Heaven!
- Poor wanderers of a stormy day!  
     From wave to wave we're driven,  
 And Fancy's flash, and Reason's ray,  
 Serve but to light the troubled way—  
     There's nothing calm, but Heaven!

You will notice the slow, grave, subtly varied rhythm of A, so in harmony with the subject; and the repeated word 'die' of the refrain in the first three stanzas, like the slow tolling of a funeral bell. Then note the sudden change of pitch in the last stanza—the rise from pensive sadness to the quiet but assured triumph of faith, emphasized by the unexpected sharp image, 'But though the whole world turn to coal', and the sudden change of the refrain to the exultation of 'Then chiefly lives'. Note also the melodious word-music throughout; and the arresting and original imagery. The poem is emphatically emotional; but the emotion is restrained, deep and obviously sincere. This piece has imagination, music and emotion; and it is certainly poetry.

With regard to B, on the other hand, the metre is all wrong for the theme; it is a mechanically regular rocking-horse motion, without any variation. What music there may be in the verse is, therefore, a discord, being out of harmony with the solemn subject. There is nothing distinguished in the language; the personifications are lifeless, being merely abstract nouns printed with initial

capitals (Joy, Woe, Glory, etc.). There is no personal communication in the verses, and there does not seem to be any sincere feeling behind them. The most they attain is a vague conventional sentiment. It is certainly not convincing. Its feeble imagination, its lack of harmonious music, and its sentimentality in place of real emotion, show that this piece is not poetry. (A is George Herbert's *Virtue*; B is by Thomas Moore. Both pieces are correct verse; but A is verse inspired by poetry, and B is mere sentimental verse.)

### *Prose Poems*

So, though verse is the usual form in which poetry is expressed, there is much verse that has no poetry in it—mere verse. And, further, poetry is not always expressed in verse form. Sometimes it gets itself expressed in prose.

Read the following passages:

- A. There is a gloom in deep love, as in deep water; there is a silence in it which suspends the foot, and the folded arms and dejected head are the images it reflects. No voice shakes its surface; the Muses themselves approach it with a tardy and timid step, and with a low and tremulous and melancholy song.
- B. Beautiful city! So venerable, so lovely, so unravaged by the fierce intellectual life of our century, so serene! . . . Adorable dreamer, whose heart is so romantic! Who hast given thyself so prodigally, given thyself to sides and heroes not mine, only never to the Philistines! Home of lost causes, and forsaken beliefs, and unpopular names, and impossible loyalties!
- C. O eloquent, just and mighty Death! Whom none could advise, thou hast persuaded; what none have dared, thou hast done; and whom all the world flattered, thou only hast cast out of the world and despised. Thou hast drawn together all the far-stretched greatness, all the pride, cruelty and ambition of man, and covered it all over with these two narrow words, *Hic jacet*.

All these three passages are in prose. But read them aloud, and you cannot but hear their organ-like music—word-music and free flowing rhythm. All three are expressions, and noble expressions, of the imagination, and are highly imaginative in every detail. And through all these pulses a deep, compelling emotion. All the essentials of poetry are here; how, then, can we deny the name of poetry to these pieces of imaginative prose? There is nothing wanting in them except metre; and metre is not an essential of poetry, but only of verse. These are *prose poems*. (A is by Walter Savage Landor, B is part of Matthew Arnold's tribute to Oxford, and C is the conclusion of Sir Walter Raleigh's *History of the World*.)

*Free Verse*

Another form in which poetry has clothed itself in modern times is what is called *free verse*, of which there are different styles. Writers of free verse deliberately eschew metre or metrical rhythm, on the ground that metre hampers the free expression of a poet's thought; but they insist on rhythm, or 'cadence', as some prefer to call it. But, while some get beautiful effects with free rhythm, it is not easy to distinguish between free-verse cadence and the rhythm of elevated prose (such as we have in the three prose passages above). Read, for example, this poem by Walt Whitman:

*The Imprisoned Soul*

At last, tenderly,  
From the walls of the powerful, fortified house,  
From the clasp of the knitted locks—from the keep of the  
    well-closed doors,  
Let me be wafted.

Let me glide noiselessly forth;  
With the key of softness unlock the locks—with a whisper  
Set ope the doors, O my soul!  
Tenderly! be not impatient!  
(Strong is your hold, O mortal flesh!  
Strong is your hold, O love!)

That is poetry; for it has all the marks of poetry—imagination, emotion and music. But in what way does it differ from poetic prose? Let it be printed as prose, and one can see that it is in the same class as the three prose poems quoted above:

At last, tenderly, from the walls of the powerful, fortified house, from the clasp of the knitted locks—from the keep of the well-closed doors, let me be wafted. Let me glide noiselessly forth; with the key of softness unlock the locks—with a whisper set ope the doors, O my soul! Tenderly! be not impatient! (Strong is your hold, O mortal flesh! Strong is your hold, O love!)

This is a prose poem. Now let us reverse the process, and write out Raleigh's noble peroration in the form of free verse:

O eloquent, just and mighty Death!  
Whom none could advise,  
Thou hast persuaded;  
What none have dared,  
Thou hast done;  
And whom all the world hath flattered,  
Thou only hast cast out of the world,  
And despised.

Thou hast drawn together  
All the far-stretched greatness,  
All the pride, cruelty and ambition of man,  
And covered it all over  
With these two narrow words,  
*Hic jacet.*

### *A Word to Teachers*

In conclusion, I should like to say a word or two on the teaching of poetry in schools. The true object of the poetry lesson should be to teach children to appreciate real poetry, so that they may learn to recognize it and love it, and wish to read it for themselves in after life. For poetry is the noblest form of thought-expression, and a source of the truest pleasure. But I am afraid that poetry teaching in schools too often consists in using poems as stalking-horses for lessons in grammar and syntax, parsing and paraphrasing, explaining 'meanings' and classical 'allusions'. Even if this is an exaggeration, I doubt if the teaching of a poem often gets much beyond the explaining of its meaning and subject-matter. This kind of teaching amounts only to the teaching of poems with all the poetry left out. It is, therefore, all wrong, and that for two reasons. First, it degrades the poem; it is like turning the beautiful white-winged Pegasus into a common cart-horse. Secondly, it makes poetry, which is one of those 'studies that serve for delight', a weariness to the flesh; so that the poetry lesson, to which children should look forward with eager pleasure, becomes an hour of drudgery and boredom. The too frequent result is the creation in the children's minds of a distaste for poetry, which may last a lifetime, depriving them of one of the purest pleasures in life.

I am well aware that this state of affairs is not entirely, nor even mainly, the fault of the teachers. The chief blame is on the head of an examination system which has been allowed to take the place of real education. At the same time, a teacher who is a lover of poetry and knows something of its true nature should try to teach poems in such a way that, while preparing his pupils for the inevitable examination, he may at the same time open their minds to the beauties and excellencies in real poems that are beyond the power of examiners either to examine or destroy.

Another obstacle to real poetry teaching is the fact that so many of the so-called 'poems' (save the mark!) in school readers are not poems at all. One nearly always finds such stock pieces as Eliza Cook's *King Bruce and the Spider*, Mrs Hemans' *Casabianca* and the like, which are mere verse with scarcely a spark of poetry in them. Of course there is in this a crumb of comfort for

the harassed teacher; for, as one cannot get blood out of a stone, so he cannot be expected to extract poetry from mere verse where there is none. So he can, with a clear conscience, use such 'poems' for mere examination purposes, and as excuses for exercises in grammar and paraphrase; for it is of no use to try to teach them as poetry.

But real poetry calls for very different treatment. And this means that the teacher should be able himself to distinguish between true poetry and mere verse. It is not always easy to do this, for it requires a trained poetic taste. The only way to train one's taste is to read and study poems that have stood the test of time and are acknowledged to be true and noble poetry. If this is done, one will come in time to feel the difference between the false and the true. Professor Garrod sums this up very neatly: 'To a true taste in poetry there is requisite just *clean feeding in poetry*.' Which means this: 'The only test I know of a good book is the best books. The highest scholarship is, in fact, the humblest pupilage. The masters of criticism are those who are still at school to Shakespeare, Milton, Wordsworth. Taste is still conditioned by the palate; and *a safe diet makes a clean palate*. Shakespeare and Milton and Wordsworth are a safe diet. The good book is not necessarily like the books of any of these three; but it is a book that savours well to a palate which these three have kept pure and sensitive.' As the Lady in *Comus* says,

And that which is not good is not delicious  
To a well-governed and wise appetite.

HENRY MARTIN

## EXPANSION OF THE WARDHA SCHEME

It is now a little over two years since the Wardha Scheme of education was promulgated, and during this brief period the movement has made gratifying progress and has also gained a measure of recognition both in this country and abroad. In some provinces this 'New Education' has already passed beyond the preliminary stage, has been adopted as the policy of the Government and is being worked as a part of the recognized system of education. In other provinces the preliminaries, such as the training of teachers and the preparation of detailed schemes of expansion, are nearing completion, making it possible to start Basic Education schools next academic year.

When the Wardha Conference met in October 1937, to formulate the scheme based on the ideas and plans of Mahatma Gandhi, the discussion with regard to the possibilities of introducing craft work as the pivot of the new system of education took in the main an academic turn. But when the first formal Basic Education Conference, convened by the Government of Bombay, met at Poona in October 1939, the Scheme was no more a theoretical proposition, supported as it was by men with practical knowledge of its working for nearly two years. At the Conference these men met not to discuss fundamentals, but to compare notes, to discuss the results of their observation and to seek clarification of issues that were still doubtful. The Conference has made it clear, beyond a shadow of doubt, that in the interval of two years between the Wardha and Poona Conferences Basic Education, popularly known as the Wardha Scheme, has taken a big step forward and has proved itself to be both sound and practicable.

### *Introduction of the Scheme*

A perusal of the Report of the Poona Conference convinces one that, thanks to the great interest taken by their respective Governments, as well as by individuals and national organizations, this new Scheme has made appreciable progress in several of the Congress-governed provinces as well as in the Indian State of Kashmir. In the Central Provinces and the United Provinces the Scheme has been adopted as the official educational policy of the Government, and efforts are being systematically made to introduce the new system all over the Provinces.

The Government of the Central Provinces opened a training school at Wardha in April 1938, and trained the first batch of 160 teachers. With the help of 100 of these trained teachers, the Government opened, in April 1939, 98 new primary schools called 'Vidya Mandirs', and with the remaining 60 teachers the new system of education was introduced in district board schools and the practising schools attached to normal schools. Further progress was made by the opening of the Vidya Mandir Training Institute at Wardha for the retraining of normal school teachers and some teachers from high schools. With the teachers thus trained and retrained at these two training institutions, the Government hope to transform all the normal schools in the province into basic training schools and the existing primary schools into basic schools on a province-wide scale. At the same time, realizing how much the efficient working of the new experiment depended on trained and sympathetic supervision, the existing supervising staff of District Inspectors and Assistant

District Inspectors were given short training or refresher courses in the principles of the new system.

In the United Provinces, too, similar progress has been made. The Government opened two training centres in April 1938, one at Allahabad for the training of men graduates and the other at Benares for the training of women teachers. The latter school has since been transferred to Allahabad, and placed under the charge of the Principal of the Basic Training College there. The Government of this province took a decisive step by appointing the Principal of the College as the Special Officer of Basic Education in the province and by placing him in full charge of the new experiment. Besides, in September 1938, a basic school was attached to the Training College as a practising school with the crafts of spinning and cardboard work and gardening. A further step forward was taken by the Government's opening seven refresher training courses at the headquarters of the District Inspectors of Schools, and each of these seven centres has been giving training to batches of 250 teachers from the district board and municipal schools in each of the Circles. With the help of the first batch of 1,750 teachers thus retrained, the new system has been initiated in Grade I of 1,750 district board and municipal schools in the province. The plan of the Government is not to extend the experiment to other schools, but to consolidate the work by introducing the new method of training in Grades II, III, IV and V of the 1,750 schools already chosen. By repeating this process of training, it is expected that during the course of the next four years there will be a trained staff competent to teach all the seven grades of the full course of Basic Education.

In the provinces of Bombay and Bihar, similar work is being carried on enthusiastically, and the Scheme is making great headway, though the new system is still on an experimental basis, and has not yet been adopted as the policy of the Government. One special feature of the work in these two provinces is the concentration of the new experiment in certain compact areas. In Bihar a beginning has been made in the educationally backward area of Bettiah Thana of the Champaran District, where 30 new schools were opened, the entire cost of buildings, equipment and salaries of teachers and supervisors being met by the Government. In the province of Bombay, four small compact areas in the three linguistic parts of Maharashtra, Gujarat and Karnataka were selected in February 1939, the fourth being for Urdu schools in East Khandesh. While in Bihar the experiment was started with 60 newly trained teachers, in Bombay, as in the United Provinces, the experiment is being conducted through the retraining of the

existing primary school teachers and by the gradual conversion of the present schools under district boards into basic schools.

Both in Orissa and Madras, the scheme is in an experimental stage, and these provinces have not made as much progress as the others. In Orissa, a Special Officer of Basic Education (recruited from the inspectorate of the Education Department) has been appointed. The experiment is being carried on in a compact area in Jajpur Thana of the Cuttack District, and a training centre was opened, in May 1939, in the village of Bari in the centre of the compact area, where 15 basic schools have been opened. In the province of Madras, the Government opened a basic training school at Coimbatore, in July, 1939, in order to retrain batches of 42 trained secondary grade teachers working in Government, local board, municipal and private elementary schools. While this training school was to serve the needs of the Tamil, Malabar and South Kanara Districts, the Government gave recognition as a basic training school for the Andhra Districts to the Andhra Jatiya Kalasala, already working in Masulipatam as a private national institution. The plan of the Congress Government, when introducing the new system, was gradually to transform the existing training schools and elementary schools into basic schools, employing for the purpose the teachers retrained at the basic training schools at Coimbatore and Masulipatam. How far this policy will be continued by the present Government it is not easy to say at the present moment.

Among the Indian States, so far only Kashmir has made a beginning with Basic Education, thanks to the enthusiasm of the State Director of Education, Dr K. G. Saiyidain, who was President of the Poona Conference. A training centre was opened at Srinagar to train 102 teachers of Basic Education, and two experimental basic schools were opened at Jammu and Srinagar. After completing their course of training, the teachers will start the new system in 60 basic schools.

Besides these attempts of different Governments, a few national organizations have also begun to work the new system by starting basic training schools and basic schools. Thus we have now three training centres opened by three national institutions—one in the north, viz. the Jamia Milia of Delhi, the second in the south, viz. the Andhra Jatiya Kalashala of Masulipatam, and the third in Western India, viz. the Vedchhi Ashram in the Surat District. Among private basic schools may be mentioned the school at Tagadur in Mysore, a compact area of four village schools round Saswad near Poona run by the Tilak Maharashtra Vidyapith, Poona, two schools run by the Friends' Settlement at



Rasulia, Hoshangabad District (C.P.), the Rashtriya Gramshala at Thamna in Gujarat, the Basic School at Sewagram and the Vijay Vidyamandir of Rajpipla.

In all these various institutions together, 5,850 teachers have been trained, 2,470 are now being trained and 25,000 children are under instruction according to the new system. Thus the Scheme has made some substantial progress during the past two years. What is perhaps more important is the progress made in realizing the hopes entertained by the originators of the Scheme to improve the prevailing system of education and the attainments, in particular, of pupils whose education stops with the elementary school.

### *Improvements Observed*

When the Scheme was promulgated, it was feared by some educationists that the new system might prove an exploitation of child labour. But at the Poona Conference speaker after speaker testified, from personal experience, that education through productive craft work had proved to be a 'joyous and liberating process of education both for the children and their teachers' and that it had brought 'a new sense of self-confidence into the life of the children, and a refreshing atmosphere of healthy, disciplined freedom into the life of the school'. One speaker stated that craft work was liked by children, some of whom got absorbed in their work to the extent of forgetting what was going on around them, while another observed that the pupils were cleaner, quieter and better disciplined, forming habits of co-operative work and mutual help and displaying a new spirit of self-reliance and independence and a greater readiness to help their parents in field and home.

The fear that craft-teaching might degenerate into unrelieved and monotonous manual work and thus lose a great deal of its educative value has been proved to be false. The Exhibition organized as a part of the Poona Conference practically demonstrated that successful attempts have been made in most of the schools to introduce the element of *art* into children's craft work, which fact must be a revelation to those who are sceptical of the artistic talents of children in our schools and who think that craft work in schools is nothing more than a fad and that the Wardha Scheme will be wrecked on the rock of craft work.

The experiments so far made have also brought out the feasibility of correlated teaching, and have proved that it is a natural and psychological method. The different processes in the basic craft, together with the physical and social environment of the child, provided ample opportunities for teaching all the necessary

school subjects through the medium of craft work. Those who have worked the system said at the Conference that correlation in actual practice was not so difficult as it was feared it would be at the outset, though it requires a thorough knowledge of the several subjects, if the correlation is not to be artificial. The expert teachers said, with practical experience at the back of them, that most of the general science syllabus could be correlated quite easily with such basic crafts as spinning, cardboard modelling, woodwork and agriculture. One of the speakers remarked at the Conference: 'The correlative links in the work are many, and can never be complete; the teacher must use his discretion and consider their relative importance, bearing in mind the age, health and environment of the children.'

The new system has been found to be of immense help in cultivating the sense of citizenship in the pupils. Its primary aim is, in fact, to turn children into useful citizens who will be capable of exercising, with intelligence, their rights and duties as citizens and who, as active members of society, will be able to repay in the form of some useful service what they owe to it as members of an organized civilized community; in short, the system aims at producing workers, not drags and parasites. Basic schools establish contact with village life. As Sri B. G. Kher, former Premier and Education Minister of Bombay, said at the Conference: 'Children are taken out on visits to the homes of people of different social status in life. In addition to these visits, occasional evening programmes are arranged for the entertainment of other people, when the children demonstrate their craft, give recitals, sing songs and bhajanas, etc.' The children are thus trained to become useful members of society. Srimati Asha Devi said: 'What I consider to be the most important aspect of this education is that, within the brief period of ten months, these little children have grown into responsible citizens not only of the school community but also of the village.'

### *Adaptations of the Scheme*

One other fact worth noting is the lack of any mechanical uniformity; there is no desire to impress any rigid uniform cultural pattern on the people. Each centre of experiment is working out its own technique and methodology and making its own contribution to the practical aspect of Basic Education. This variety is a sign of life, and is a welcome feature of the new experiment. The Exhibition was the best proof of the variety referred to. The varied crafts and activities exhibited there were rich in suggestion of the diversity of Indian culture as well as of

the differing applications of the 'basic' idea that are being developed at the various centres of experimentation.

From the foregoing account of the progress so far achieved it is clear that the Scheme has ceased to be 'Wardha' or a fad of Congressmen and Congress Ministers; it has become instead just general Basic Education. It is significant to note that when in Bihar the Congress Government resigned and the Education Minister ceased to be Chairman of the Board of Basic Education, his place as Chairman was taken by Mr Cousins, Adviser on Education to His Excellency the Governor. The Scheme is no longer a theoretical proposition, but an established educational process, trying to work out its own technique, create new literature and evolve a new organization in different parts of India. Even in provinces where Congress Ministries have not been functioning, the basic ideas of the scheme, e.g. its insistence on productive craft work and its view of the syllabus as an inter-related unity, have exercised considerable influence on the educational reorganization that is being attempted there.

We may conclude by asking ourselves one pertinent question: 'What will happen to the scheme of Basic Education now that the Congress is still in the wilderness?' I will give the same answer as was given by Dr Saiyidain in his presidential address at the Poona Conference. He said:

Partisans of the Scheme ask this question with concern and anxiety, its opponents with ill-concealed triumph. I must confess that the question does not worry me unduly. The Scheme was born when the Congress was in the wilderness; it was but a chance that, soon after, the Congress assumed office and was able to extend its patronage to the movement; if the Congress goes into the wilderness again, the Scheme will have to stand on its own intrinsic merits.

That the Scheme has its intrinsic merits has been admitted even by an authoritative body like the Central Advisory Board of Education of the Central Government in Delhi. The working of the Scheme during the past two years must have convinced every unprejudiced educationist and administrator that the system is a sound one, based on justice, co-operative endeavour, productive work and respect for human individuality, and is calculated to 'direct the intellectual and emotional disposition of the growing generations of India into the right channels and thereby help to constitute a powerful guarantee in favour of peace, justice and humanity'.

C. J. VARKEY

## DOES GEOMETRY PROVIDE TRAINING IN REASONING?

One of the chief reasons why Geometry occupies the place it does in the school curriculum is the fact that it is believed to provide training in clear and logical reasoning. This paper reports the results of an attempt to ascertain what justification there is for this belief, though the conclusions are for the present purely tentative in character.

A test was set and administered to 77 boys and 18 girls towards the end of the high school stage of instruction. Except for the fact that no time limit was set and the questions were in the pupils' mother-tongue, the conditions under which the test was administered were precisely similar to those of an ordinary school examination. When in fact the test was announced, the pupils inquired whether it was their third quarterly test that they were about to sit for. When, however, they were told that the results of the test would find no place in the marks registers, but that the test was meant to ascertain if they could apply the reasoning they were accustomed to in their geometry to similar situations in ordinary life, their curiosity was aroused, and it was encouraging to find them attack the test with enthusiasm.

The test was in two parts. Part I was the geometrical counterpart of Part II, in which the application of geometrical thinking to fresh situations was tested. It consisted of the following six types of reasoning with two examples of each type, making twelve exercises in all:

1. If  $a = b$  and  $b = c$ , then  $a = c$ .
2. If  $a > b$  and  $b > c$ , then  $a > c$ .
3. If  $a = b$ , then  $a + x > b$ ,  $x$  being positive.
4. If  $a = b$  and  $c = d$ , then  $a + c = b + d$ .
5. If  $a > b$  and  $c > d$ , then  $a + c > b + d$ .
6. If  $x$  is either  $a, b$ , or  $c$  and if it is not  $a$  or  $b$ , then it must be  $c$ .

Part II consisted of twelve samples of simple reasoning employed in non-geometrical situations, in groups of two each, corresponding to the six types of reasoning represented in Part I.

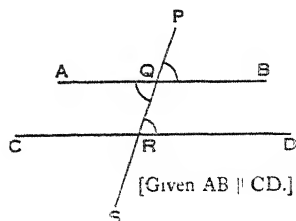
The test is reproduced below:

### PART I

*In the space provided, write down, in each case, the conclusion that you draw from the facts given you:*

1.  $\angle AQR = \angle PQB$ , being vertically opposite angles.  
 $\angle AQR = \angle QRD$ , being alternate angles.

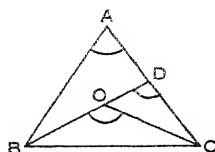
Therefore .....



2. Exterior  $\angle ODC >$  interior opposite  $\angle BAD$ .

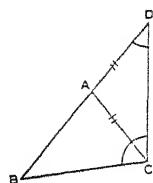
Again, exterior  $\angle BOC >$  interior opposite  $\angle ODC$ .

Therefore .....



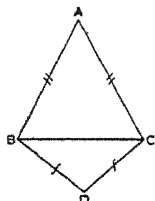
3.  $\angle ACD = \angle ADC$ , triangle ADC being isosceles.  
 Add  $\angle ACB$  to  $\angle ACD$ .

Therefore .....



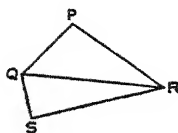
4.  $\angle ABC = \angle ACB$ , triangle ABC being isosceles.  
 $\angle DBC = \angle DCB$ , triangle DBC being isosceles.

Therefore .....



5.  $\angle PQR > \angle PRQ$ , PR being greater than PQ.  
 $\angle SQR > \angle SRQ$ , SR being greater than SQ.

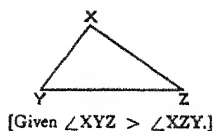
Therefore .....



6. XZ is equal to, greater than, or less than, XY.

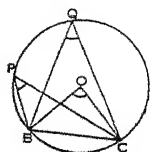
Suppose  $XZ = XY$ . Then  $\angle XYZ = \angle XZY$ . But this is not the case.  
 Suppose  $XZ < XY$ . Then  $\angle XYZ < \angle XZY$ . But this, too, is not the case.

Therefore .....



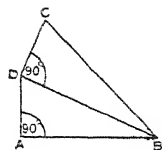
7. O being the centre of the circle and P, Q being points on the circumference,  
 $\angle BPC = \frac{1}{2} \angle BOC$  and  $\angle BQC = \frac{1}{2} \angle BOC$ .

Therefore .....



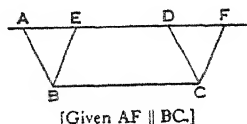
8. In right-angled triangle BDC, hypotenuse  $BC > BD$ .  
 In right-angled triangle ADB, hypotenuse  $BD > AB$ .

Therefore.....



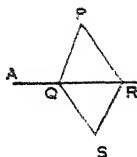
9. Triangle ABE = triangle DCF.  
 Add figure EBCD to both.

Therefore .....



10. In triangle PQR, exterior  $\angle AQP >$   
 interior opposite  $\angle PRQ$ .  
 In triangle QRS, exterior  $\angle AQS >$   
 interior opposite  $\angle QRS$ .

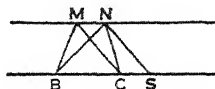
Therefore .....



11. Triangle NBC = triangle MBC,  
 because they stand on the same  
 base and between the same  
 parallels MN and BC.

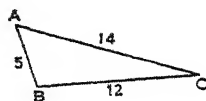
Add triangle NCS to triangle NBC.

Therefore .....



12.  $\angle ABC$  is or is not a right angle.  
 If  $\angle ABC$  is a right angle, then  $AC^2$   
 $= 5^2 + 12^2 = 169$ .  
 But  $AC^2 = 14^2 = 196$ .

Therefore .....



## PART II<sup>1</sup>

*In the statements given below the same kind of reasoning is used as was used in Part I. Against each statement write down the number of the exercise of Part I in which the reasoning was similar to that used in the statement.*

A. A full-free studentship fell vacant. The headmaster asked the class teacher who was the better student, Krishna or Gopal. Referring to his marks register, the teacher replied, 'Krishna has scored 68 per cent of the marks on the average, and Gopal, too, has scored the same percentage. I consider the boys equally good'.

B. A punter attended the Bangalore races. *Golden Star* and *Bright Flower* were considered good horses. The punter argued

<sup>1</sup> Before being set to work Part II, the pupils were given an example of the matching which the test had in view.

thus: 'In the Bombay races *Golden Star* beat *Blue Riband*, and last Christmas *Blue Riband* beat *Bright Flower* at Madras. I am therefore sure that *Golden Star* will easily beat *Bright Flower* in the present race.'

C. The land armies of the Germans and the Allies are equally strong on the Western Front, and during the past ten years Germany has built an air force as powerful as that of the Allies. The two opposing forces are therefore equally matched, and each is afraid to attack the other.

D. A and B are equally capable officers in the service. But A has influence, which B has not. A will therefore succeed much better than B.

E. His teacher, taking Munuswamy to task, said: 'Munuswamy, I saw you running away yesterday to escape drill.' Munuswamy: 'No, sir, it was not I, but someone else.' Teacher: 'Well, either my eyes are bad or it was you. The doctor tested my eyes only last week, and declared that they were as good as an eagle's. It must have been you whom I saw running away.'

F. In the last Great War the German and Allied armies were so equally matched that for four years the result was in nobody's favour. Then in 1918 America threw her weight on the side of the Allies. The Allied forces then became definitely superior, and the Germans soon collapsed.

G. The soil of the Tumkur District is more fertile than that of Chitaldrug. In addition, the rainfall was better in Tumkur last year. In consequence the crops were far more plentiful in Tumkur than in Chitaldrug.

H. A subscription list was brought before Pani and Murthy. Pani said to Murthy: 'Murthy, you must subscribe more liberally than I, because you get so much by way of interest.' Murthy replied: 'You are wrong, Pani. Both of us draw the same salary, and what I get by way of interest you derive from your lands. I am only just as rich as you.'

I. Two schools were compared according to the percentage of passes obtained at each. School A passed 60 candidates out of 100 sent up; School B passed 90 out of 150 sent up. The two schools were therefore bracketed.

J. Varadarajan is not only more intelligent than his elder brother, but also more industrious. Varadarajan will therefore do better than his elder brother.

K. Cork floats in water because its density is less than that of water. The density of mercury is greater than that of water. The density of cork is therefore less than that of mercury, and cork will float in mercury.

*L.* A man was accused of stealing a watch. A witness said: 'I saw the man crying out "Watch for sale" in the bazaar at about midday.' The man's lawyer said: 'Either the man is or is not a thief. If a thief, he would certainly not have hawked in broad daylight an article he had stolen. He cannot, therefore, be a thief.'

The answers were examined, and in Part II credit was given to a pupil who correctly matched a statement in it with a problem in Part I in which the proper conclusion had been drawn.

Questions involving the same kind of reasoning were paired, and one question from each pair was selected by drawing lots. The six questions so drawn were put in a group. They were statements *A, K, D, H, G* and *L*. The others—*I, B, F, C, J* and *E*—were put in another group. The scores of the pupils in the two parallel groups showed a high degree of correlation, viz.  $.87 \pm .05$ , and the results of the test may therefore be regarded as fairly reliable.

Table I gives the percentage of pupils who were familiar with each type of reasoning in a geometrical problem, viz. over 75 per cent.<sup>1</sup>

TABLE I

TYPE OF REASONING	PERCENTAGE OF PUPILS ABLE TO REASON GEOMETRICALLY	PERCENTAGE OF PUPILS UNABLE TO REASON GEOMETRICALLY
1	82	18
2	77	23
3	74	26
4	90	10
5	73	27
6	86	14

In the geometrical reasoning, Types 1 and 4, involving equalities, and Type 6 were found easier than Types 2, 3 and 5, involving inequalities.

If a pupil referred both examples of a type of reasoning in Part II to the right type in Part I, it was concluded that he or she was fully conscious of the nature of the reasoning involved; but if out of the two one was matched correctly and the other

<sup>1</sup> It was not necessary for a pupil to work both the problems in Part I involving the same type of reasoning in order to obtain full credit in Part II for capacity to apply the reasoning; it was sufficient if both the examples of a particular type of reasoning were referred to only one parallel example of geometrical reasoning.



incorrectly, it was concluded that there was doubt as to the applicability of the reasoning in the one situation to the other.

Table II shows the percentage of pupils who could reason geometrically according to all the types of reasoning represented in Part I and (a) who had a good grasp of the applicability of the reasoning to outside situations, (b) who were doubtful as to its applicability and (c) who had no idea whatever of its applicability.

TABLE II

CLASS OF PUPIL	TYPES OF REASONING					
	1	2	3	4	5	6
(a)	27	48	59	36	47	61
(b)	41	34	31	36	41	28
(c)	32	18	10	28	12	11

On the whole more than half the pupils failed to recognize the similarity of the reasoning in Part II to the types they had dealt with successfully in Part I.

Table III shows the performance of individual pupils in Part II. The table should be read thus: 'Of 56 pupils who could use all six types of reasoning in Part I, 10 recognized Type 6 in Part II, 6 recognized Type 5 and so on.'

TABLE III

NUMBER OF TYPES OF REASONING	NUMBER OF PUPILS FA- MILIAI WITH THESE TYPES IN PART I	NUMBER OF PUPILS ABLE TO RECOGNIZE EACH TYPE OF REASONING IN PART II						
		6	5	4	3	2	1	0
6	56	10	6	11	9	10	8	2
5	11	...	...	1	2	2	3	3
4	5	...	...	...	...	2	1	2
3	10	...	...	...	...	...	...	10
2	7	...	...	...	...	1	...	6
1	3	...	...	...	...	...	...	3
0	3	...	...	...	...	...	...	3
Total ...	95	10	6	12	11	15	12	29

Tables II and III make it clear that a large proportion of the pupils were unable to carry over to analogous non-geometrical situations the types of reasoning they were already familiar with in their study of geometry.

The general standing at school (as shown by their average

marks for the first terminal and selection examinations) of the first 56 pupils of Table III was next considered in relation to the capacity shown by them in applying geometrical reasoning to the situations of Part II of the test. The correlation between this latter capacity and geometrical ability as shown by examination marks was  $.52 \pm .07$ .

The average mark obtained at the examinations by the 56 pupils was 51.4 with a standard deviation of 9.2. The pupils were therefore divided into three groups for study, as follows:

10	pupils in	Group 1	scoring 61 marks and more	(range 14 marks)
36	"	"	2 " 43-60 "	(range 17 marks)
10	"	"	3 " less than 42 marks	(range 8 marks)

The extent to which the pupils in the three groups were able to apply the reasoning of geometry to reasoning in general is shown by the figures given in Table IV.

TABLE IV

NUMBER OF TYPES OF REASONING WITH WHICH ALL THE 56 PUPILS WERE FAMI- LIAR IN PART I OF THE TEST	NUMBER OF PUPILS IN EACH GROUP ABLE TO APPLY IN PART II THE NUMBER OF TYPES OF REASONING NOTED IN THE PREVIOUS COLUMN		
	Group 1	Group 2	Group 3
6 ... ..	4	6	...
5 ... ..	1	5	...
4 ... ..	3	7	...
3 ... ..	1	7	2
2 ... ..	1	5	2
1 ... ..	...	5	5
0 ... ..	...	1	1
	10	36	10

An examination of Table IV shows a fair amount of transfer in the case of the pupils who stood high in school performance and little evidence of it in the case of the pupils who stood low in school performance. As regards the central group, there is much variability in respect of the extent of transfer, so that from examination marks alone it would not have been possible to gauge the pupils' capacity to reason along lines made familiar in the geometry lesson.

On the whole there is not much evidence of positive benefit derived from the study of geometry so far as improvement in the

general capacity to reason is concerned, so much so that if the study of geometry is to have its full educative value, it seems desirable that every opportunity should be seized to extend its more or less schematic reasoning to parallel situations in everyday life.

N. S. VENKATARAM

## FOREIGN LANGUAGE TEACHING

The old method of teaching foreign languages insisted upon the intensive analysis of texts, which amounted in practice to linguistic drill within a very narrow compass. Then came the Direct Method, which spread its net far and wide, but in practice did little to consolidate its gains. In the offing lurked the Translation Method, which got down to the realities of the classroom, and was resorted to, if surreptitiously, in every difficulty. It has been my experience that to achieve the double purpose of rapid vocabulary building and speech acquisition a combination of the Direct and Translation Methods is necessary. 'It is true,' writes Mr Morris, 'that the "Direct" method by its use of intensive drill is a valuable means of creating fresh language habits, but even in this respect it is by no means perfect. When a pupil persists in certain errors owing to his subconscious use of vernacular forms as models, the speediest and most reliable means of breaking the habit is to point out the source of his misconception. This entails comparison of the two languages, a procedure which is eschewed by extreme upholders of the reform method.'<sup>1</sup>

It cannot be gainsaid that the Direct Method is a natural method of teaching a language. Instead of learning about the language, the boys get actual practice in its use—they learn to speak by speaking, to write by writing. I have found in the case of Bengali boys coming from European schools that they can express their ideas more clearly and easily in English than a boy coming from an Indian school, for the simple reason that they have had more practice in the actual use of the language, though not necessarily according to any particular programme. This *laissez-faire* method, however, is effective only in the early stages of language learning, when complexities of thought do not arise.

A method I have personally tried with success with senior pupils is the Retranslation Method. Let a boy or girl translate an extract from an English text into his mother-tongue, and after a few days let him take up his own translation and render it back into

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<sup>1</sup> *A Practical Guide to Foreign Language Teaching* (Macmillan), pp. 47-8.

English. Then let him compare his English version with the original extract given him to translate into his vernacular. Peculiarities of expression which were originally missed now spring, as it were, to life, and differences in idiomatic usage are noted and remembered.

At least in the early stages of foreign language learning, I have found 'vocabularies' of greater use than supplementary reading in the acquisition of a useful vocabulary. By 'vocabularies' I mean lists of words and phrases with their vernacular equivalents, the words being arranged according to grammatical function. Not only are the lists short-cuts to their goal, but they are permanent records to which the learner can turn, with profit, at any time of the day. It is a pity that 'vocabularies' are not being published nowadays, though they were once in great favour. It almost looks as though all that is useful is taboo in educational circles dominated by 'modern methods'.

As regards conversation, regular drill is needed not in the memorizing of 'model conversations' but in what is really the technique of conversation. That is, the learner needs to be placed in the position of a speaker, and taught how to respond. Not by repetition but by making his own contribution to the give and take of normal conversation can the art of speaking be acquired. Least of all can it be acquired by the reading method, i.e. by reading conversations written by others.

Without being acquainted with grammatical distinctions, it is not possible for the learner to recognize differences in structure between the foreign language and the mother-tongue or to thread his way through idiomatic usage. Therefore a knowledge of grammar is essential in foreign language teaching and learning, though it should be practical in the sense that a practical use can or will be found for it. Often the systematic study of accidence is decried on the ground that it is mere 'formal grammar'; but how can the learner get acquainted with his 'tools' unless he is taken through a systematic course in the fundamentals of grammar? Though not of immediate use in the actual writing of English, it will be of the utmost use when the study of the sentence is begun, for only a learner acquainted with the common grammatical terms (his 'tools') is able to 'take down' a sentence and name its several parts. That a knowledge of accidence takes time to acquire is no fault of the teacher's; and the sooner the distinction between 'formal' and 'functional' grammar is dropped—for both varieties of grammar cover the same ground—the better for foreign language teaching. The powerful aid that comparative grammar can render in the teaching of a foreign language also needs to be

recognized. It is a great pity that Dr West's labours in this direction never received the recognition that was their due.

Mere fluency in reading comes with practice. But if good pronunciation as well is desired, then some phonetic training has to be given the teacher to enable him to recognize the several speech sounds of English and to teach his pupils how to produce them. The diacritical marks given in dictionaries do not go far enough in indicating the pronunciation of words, and are in any case more difficult to understand than the alphabet of the International Phonetic Association. Every teacher of English should have a copy of Daniel Jones' *Pronouncing Dictionary*.<sup>1</sup> In the early days of English teaching in India much importance was attached to good reading, but latterly oral reading has had to give place to silent reading, which is employed to test the reader's grasp of what is read, though oral reading could equally well be employed for the same purpose, while at the same time testing appreciation for correct intonation and the change of meaning brought about by change of emphasis.

Dictation needs to be viewed as a training in good listening as well as a test in spelling. If the ability to set down correctly what is heard is not cultivated at the outset, note-taking becomes difficult at a later stage in the pupil's schooling.

The chief difficulty in the learning of a foreign language is not, however, the understanding of what is read or spoken, but in expressing one's own ideas correctly. To arrange one's ideas in logical sequence and then to set them down clearly in correct English is the ultimate aim of all English teaching. As in the case of conversation or speech, specific practice is needed in the elements of composition before paragraph writing is attempted. The prevailing fault is that too little teaching is done, and too much writing for which the pupil has not been prepared beforehand by means of practical instructions and suitable drilling in the use of the phraseology that has necessarily to be employed. To leave the pupil to his own devices is to expect him to evolve order out of chaos by providing him with opportunities for floundering.

S. M. DATTA

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<sup>1</sup> J. M. Dent and Son.

## DIAGNOSTIC TESTS FOR OPTIONAL MATHEMATICS

‘A large number of scripts showed that pupils that could not frame a simple equation with given data, . . . say that C.P.—S.P. is profit, have been permitted to choose algebra and geometry as their optional subject.’ So writes a Madras examiner.

But in the absence of satisfactory diagnostic tests, it is not always easy to determine who shall and who shall not be permitted to study algebra and geometry as an optional subject at the high school stage. That satisfactory progress in elementary mathematics may not be accepted as sufficient indication of mathematical ability of the required order is shown by the following records, which are typical of quite a large class of pupils:

CANDIDATE	MARKS OBTAINED IN	
	Elementary Mathematics	Optional Mathematics
B	69 (2nd out of 16)	29 (10th out of 13)
J	65 (4th out of 16)	25 (13th out of 13)

A diagnostic test should be designed to find out whether the pupil will be able to grasp the common-sense mathematical arguments with which he will be confronted in his study of optional mathematics. The teacher has, in other words, to set a paper bearing on points which have been found by experience to present difficulties to the ordinary run of pupil without as yet specialized knowledge of his subject. The idea of converse, the spirit of the *reductio ad absurdum* method and proof by exhaustion are instances in point. Such a test should succeed in eliminating obvious misfits from the mathematical group. The paper might also include a few questions bearing on some of the gross errors common in schoolboy mathematics, such as the statement that  $x \times x = 2x$ .

While there is no necessity to cast all the questions in ‘new type’ form, it is advisable that they should be short and clearly worded, and should require only short answers. Each question should deal with only one point. The questions would naturally be arranged in order of difficulty, more than the required number of questions may be included for the time allotted for answering

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them, and for the benefit of the 'bright sparks' a few 'teasers' may be included. As regards the length of the paper, a set of 30 questions—15 in algebra and 15 in geometry—would suffice for an hour's test. If sufficient space is left between the questions, the answers could be written on the question paper. This would minimize the chances of questions becoming generally known and preventing the paper from being used on another occasion, which of course is necessary if standardization is aimed at.

A specimen set of questions is given below:

## ALGEBRA

1. Find two numbers, the sum of which is 13 and the product 40.
2. The sum of two numbers is 72. One of them is  $36 + x$ . What is the other number?
3. If  $x$  is a factor of  $y$ , what is the other factor?
4. Write down in algebraical language, using signs and symbols:
  - (a) The sum of the squares of  $a$  and  $b$ .
  - (b) The square of the sum of  $a$  and  $b$ .
5. Distinguish between (a) the square of a number and (b) twice the number. When will these two be equal?
6. If  $a + b = 180$  and  $a + c = 180$ , what do you infer?
7. If A is greater than B and B is greater than C, what do you infer about A and C?
8. If A is greater than B, and C is greater than B, what do you infer about A and C?
9. If the product of two numbers is zero, what is your inference regarding the numbers?
10. If  $a + b = 0$ , what do you infer regarding the value of  $a$  and  $b$ ?
11. If  $(x - 4)^2 + (y - 3)^2 + (z - 2)^2 = 0$ , does anything follow regarding the value of  $x$ ,  $y$  and  $z$ ?
12. What is the lowest possible value of  $x^2 - 4$  for the various values of  $x$ ?
13. What is the highest possible value of  $13 - (x - 5)^2$  for the various values of  $x$ ?
14. Write down five consecutive odd numbers of which the middle one is  $a$ .
15. Write  $314 \times 286$  in the form  $(a + b)(a - b)$ .

## GEOMETRY

1. If AB is not equal to CD, what may it be?
2. AB is placed along PQ so that A falls on P. When will B fall on Q?

3. C is the centre of a circle. If CP is greater than the radius, does P fall inside or outside the circle?

4.  $\angle ABC$  is placed on  $\angle PQR$  so that B falls on Q and BC along QR. If  $\angle ABC = \angle PQR$ , where does AB fall?

5. Is a rhombus a parallelogram? Is a square a rhombus? Give reasons for your answer in each case.

6. What is the path traced by the centre of a hoop driven along a straight road?

7. A triangle cannot have more than one obtuse angle. Why? How many acute angles may it have?

8. In an isosceles triangle the perpendicular from the vertex bisects the base. Does it do so also in an equilateral triangle? Why?

9.  $\angle KQR = \angle QRD$ . But these are alternate angles. Therefore KQ is parallel to RD. Which of the following theorems is used in drawing the above conclusion?

(a) If a straight line cuts two parallel straight lines, the alternate angles are equal.

(b) If a straight line cuts two other straight lines so as to make the alternate angles equal, then the straight lines are parallel.

10. What is the relation that you notice between these two theorems?—

(a) If a triangle is isosceles, the perpendicular from the vertex bisects the base.

(b) If the perpendicular from the vertex bisects the base, the triangle is isosceles.

11. In Question 10, if (a) is proved, does (b) follow without proof? Explain with an example.

12. 'Two intersecting straight lines cannot both be parallel to a third straight line.'

OA and OB are straight lines. CD is a third straight line. With the aid of the above statement, complete the following:

If OA is parallel to CD, then OB.....

If OA is not parallel to CD, then OB.....

13. A polygon which is both equilateral and equiangular is called a regular polygon. So are all regular polygons equiangular? Are all equilateral polygons regular?

14. Into how many triangles is a regular polygon of eight sides divided by joining a vertex with each of the other vertices? Into how many triangles would a regular polygon of  $n$  sides be divided in the same way?

15. A theorem says that there is one and only one circle which passes through three given points not in the same straight line. From this what do you infer about the number of points at which two circles may cut one another? How do you arrive at your conclusion?



## TIME IN THE HISTORY LESSON

How does the pupil acquire the sense of time? First from *simultaneity of occurrence*. We experience simultaneity when two impulses affect the same sense organ, and form a set of associations in the mind. Secondly, from *successiveness of events*. We observe that certain events follow or precede certain other events. From this we derive the three concepts of past, present and future, the rudiments of chronology. Thirdly, from *interval of time*, or the passage of time from one moment to another. The greater the interval between two events, the clearer our perception of the events. The interval gives rise to the sense of *duration*, a marked characteristic of our sense of time. Events take years and sometimes decades before they reach completion. Duration is measured in years, decades, or centuries.

How shall we make clear chronological implications to school pupils? We may begin with the pupils' awareness of the successiveness of events, being content with arranging them in right chronological order and reserving dates for a later stage of instruction. It has been the experience of the present writer that too early an insistence on dates in the teaching of history is apt to make it unreal and mechanical.

By an appeal to his sense of change we can give the pupil an idea of the interval of time that elapses between two successive changes and of the duration of a particular change. Taking, for example, the evolution of a modern house, we may begin by pointing out how the earliest inhabitants of the earth needed no artificial shelters for a long time. Then came the portable hut of nomadic tribes. When wanderings ceased, houses began to be built of mud. In the wake of the mud hut came the house of brick and mortar, the cement building and last of all the ferro-concrete structure. Incidental reference will be made to house fittings and amenities, such as electric lighting and sanitary equipment. So the pupil acquires the idea of progress in civilization.

It is a mistake to suppose that the pupil's sense of chronology develops in direct proportion with the number of dates given him. To begin with, only sufficient dates are needed to make the information sequential, for facts given in chronological order preserve both a sense of change and of progress. Therefore let our rule be to arrange our material with reference to only a few important dates.

Some events in history occur simultaneously, yet they are not a series but a group. In describing them, however, we take them one by one, so that the fact that they occurred simultaneously is apt to be obscured. Narration is necessarily of only one dimension—it travels forward towards one or towards successive points. Due allowance should be made for this limitation in our teaching. All action, as Hinsdale reminds us, is solid, while its description is linear, and all our efforts to make our pupils realize the solidity of historical facts are attempts to add as many dimensions to our narrative as it is possible for us to do. One such effort is the *time chart*, which is a device to combine two dimensions in history, viz. time and action. A parallel presentation of these two leads to a closer association of them in the minds of our pupils. The time chart seems to be the easiest device for the perception of time in terms of space. For example, the relative length of reigns is displayed in space, and thus it is fairly fixed in the memory. The savage anticipated the time chart when he cut notches upon a rod to record the passage of time.

More realistic than the time chart is the pageant, provided, of course, it is worked out in correct detail. An American investigator—Knowlton—has, however, stated that the historical film contributes little to the time perception of the child, even though it is most serviceable in acquainting him with the manners and customs of bygone ages.<sup>1</sup>

The pupil is apt to mistake the order in which material is presented for the chronological order. There is a tendency also for children to think that men of the same calling belong to the same period in history. For example, boys have been known to imagine that all poets belonged to the same period! Errors such as these should be guarded against in our teaching.

To present historical facts as though they were parables conveying moral maxims is to weaken the child's sense of time and much else besides. We should allow our pupils to form their own judgements of men and affairs, making suitable allowance for distance in time.

### *Testing the Time Sense*

The following are types of tests: sets of events are given, and the pupil is asked to arrange them in chronological order, or incidents and dates are given in separate columns, and the pupil is asked to assign the correct date to each event. Mary Sturt suggests a test in which a passage with a number of temporal

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<sup>1</sup> *The Value of Films in Teaching History* (Bell).

absurdities is given, and the pupil is asked to point them out.<sup>1</sup> Here is an example of such a test:

It was in 100 B.C. that Samudragupta defeated the Moham-  
medan kings of the south. Twenty years elapsed, and in 120  
B.C. these kings asserted their independence once again. So the  
emperor had again to launch an attack on the south.

Here the date of Samudragupta is wrong, there were no Moham-  
medan kings prior to the birth of Christ and twenty years after  
100 B.C. was not 120 B.C. but 80 B.C.

In Ballard's *Intelligence Tests* we have tests designed to test  
the time sense, which could, with suitable adaptation, be used in  
our schools.<sup>2</sup>

V. S. RAMACHANDRA KIRTY

## ENGLISH SPELLING

The teaching of English spelling gives as much trouble to the  
teacher as the learning of it gives to the pupil, and much more  
rapid progress would be made in the teaching and learning of  
English if the handicap of an irrational system of spelling did not  
exist.

The root cause of the trouble lies in the twenty-six letters of the  
alphabet having to represent nearly twice as many speech sounds.  
It is true that various more or less arbitrary groups of letters make  
good the deficiencies of the alphabet. But here again the same group  
of letters does not always stand for the same sound, e.g. *ea* and *ou*.  
Then there are the difficulties connected with accentuation, diffi-  
culties which even works on phonetics cannot reduce to any sort  
of system. The Craigie system is a tremendous help to teachers  
in grading the difficulties of English spelling and teaching its  
conventions; but no teacher can hope to be master of the situation,  
and must, in his teaching of spelling, be guided by the actual  
mistakes made by his pupils.

The following are the mistakes of two boys, selected from their  
notebooks:

### CASE NO. I

1. Alwas	for Always.	5. Drark	for Dark.
2. Tow	„ Two.	6. Detemiation	„ Determination.
3. Rund	„ Round.	7. Monts	„ Months.
4. Myster	„ Mystery.	8. Preplexed	„ Perplexed.

<sup>1</sup> *Psychology of Time* (Kegan Paul), p. 88.

<sup>2</sup> *The New Examiner and Group Tests of Intelligence* (both published by  
Hodder and Stoughton).

9. Worl	for World.	17. Therefor	for Therefore.
10. Clane	„ Clean.	18. Climed	„ Climbed.
11. The	„ They.	19. Est	„ East.
12. Ides	„ Ideas.	20. Goin	„ Going.
13. Nver	„ Never.	21. Befor	„ Before.
14. Tabl	„ Table.	22. Ate	„ Eat.
15. Grate	„ Great.	23. Nam	„ Man.
16. Twords	„ Towards.	24. Ang grain	„ And grain.

## CASE NO. II

1. Though	for Thought.	13. An	for And.
2. Alway	„ Always.	14. Pleasur	„ Pleasure.
3. Som	„ Some.	15. Disciplin	„ Discipline.
4. Chang	„ Change.	16. Migh	„ Mighty.
5. Com	„ Come.	17. Assult	„ Assault.
6. Shoud	„ Should.	18. No	„ Not.
7. Dow	„ Down.	19. Buil	„ Build.
8. Eithe	„ Either.	20. Strength	„ Strength.
9. Graduall	„ Gradually.	21. Yonger	„ Younger.
10. Tree	„ Three.	22. Bauty	„ Beauty.
11. Hones	„ Honest.	23. Ha	„ Has.
12. Becaus	„ Because.	24. Husban's	„ Husband's.

Case I is more complex than Case II as regards the type of mistake made, though there is a strong family resemblance between the two sets of errors. Sixteen out of the twenty-four mistakes selected consist of the omission of letters from the middle or the end of the words, five are occasioned by the transposition of letters, one is the result of the wrong insertion of a letter, while the last mistake is due to attraction—that of the coming letter. In Case II there is only one type of mistake, the omission of letters and mostly the last letter.

In both cases, once the boys were confronted with their mistakes, they woke up to a sense of the right spelling. I maintain that what are called 'careless' mistakes in spelling are due to psychological causes rather than indifference, and a certain amount of tact is needed in dealing with them; for I have found that the more severely the perpetrators of the mistakes are criticized the greater become the mistakes made by them. I have found, too, that no amount of mechanical drill, like the writing of the correct form a certain number of times, helps to eradicate mistakes. The real cause of the trouble is emotional conflict, and sympathy helps more than harshness—where psychotherapeutic methods cannot be employed. Nervous tension was quite apparent in both the boys whose spelling has just been considered,

K. L. SHRIMALI

## THE HOME IN THE EDUCATION OF THE CHILD

It is not our purpose in the following article to dwell on the obligations of parents towards their children. We take them for granted. We propose to show how parents—and more especially the mother—may take what amounts to an active part in the education of their children.

### *Age: 1-3 Years*

A baby is very much interested in all that his mother does, and soon tries to imitate her. Almost before he is a year old, he knows and recognizes certain things. When he is learning to speak, he takes a delight in supplying the expected word. At this stage nursery rhymes find a place, for the child has the opportunity of supplying not only the rhyming words but also, later, the words ending every line. Baby is given blocks, etc., with which to learn to count. He trots round with mother as she is working, and counts the chairs she has dusted, etc. So he begins to associate each number (other than one) with a group of objects, and the idea of *more* and *less* gradually dawns on him, while the words enter his vocabulary. But mother must take an active interest in all that baby does, and must show her appreciation of his efforts to gain the mastery over his environment, thus making it appear that in her eyes his doings are of great importance. Now and again she will ask him to do little things for her; for in such requests baby finds his greatest reward, rather than in gifts of sweets, etc.

### *Age: 4-7 Years*

Soon baby grows up, and becomes a little boy (or girl). Now he is put to school, and there he finds full scope for his activity, if, that is, the school is conducted on modern lines, utilizing to the best advantage the child's love of action and movement. But the mother's tutelage is not at an end. She has still to direct his play, choosing his toys and watching him at play. Nowadays toys are plentiful, cheap and of great variety; they are also instructive. But there must be a judicious selection of them. A child should not get all that he asks for, nor is any good purpose served should he be given toys he cannot appreciate. He must be taught to make good use of what he has.

A child is a creature of fleeting interests, and so needs a great variety of toys but not a surfeit of them. Childish destructiveness should be checked, and perhaps the best way of doing this is for the mother herself to take a lively interest in the toys, and so in a sense direct the child's play. If left to himself, the child is apt to think that the toys have been given to him to keep him quiet, and this arouses a spirit of revolt, which manifests itself in destructiveness.

Picture blocks, jig-saw puzzles, scales and weights, counters—toys such as these help with the mathematical training of the child. Other forms of educative play are cutting out pictures and pasting them in scrap books, paper-folding, etc. The child may be allowed to make small purchases, tell the time, count the chickens, etc. In these ways a practical background is furnished to what is taught at school in the arithmetic lesson. Make-believe enters into many a game, and children delight in it; but it should not be indulged in to excess, for it results in morbid day-dreaming and also untruthfulness and cowardliness.

It is impossible for any teacher, however able and willing, to give each child all the attention he deserves; hence the need for the co-operation of the home in his education. As 'heir to the ages', the child should be able to profit by the experience of the race, and this experience is ready to hand in the home, though not always, of course, to the same extent.

### *Age: 8-12 Years*

As the boy (or girl) advances in age, his mother may occasionally take him out with her on such of her shopping expeditions as he may be interested in, and let him ostensibly help her in her purchases. She may draw up with him a list of articles to be purchased, together with the rates, or plan a picnic and apportion the expenses. Besides stimulating an interest in computation, this will help to foster habits of thrift, economy, foresight, prudence, alertness, etc. Whereas in school all problems have an air of artificiality, at home they become quite real. Growing children greatly appreciate a display of confidence in their abilities. There are ample opportunities in most homes, by the right appeal, to develop a sense of responsibility and self-confidence along with the virtues of honesty, uprightness and devotion to duty.

As children grow up, the hobby takes the place of the toy, and through their hobbies particular bents become apparent. Painting, fretwork, meccano, stamp-collecting—these are some of the occupations of the leisure hours of boys, as design, cutting out, knitting and dress-making are some of the occupations of girls' leisure hours.

In laying out gardens, in design, in the making of blinds for windows, etc., school studies find further practical exemplification.

*Age: 13-16 Years*

As the boy (or girl) grows up, he will naturally become more and more independent of his mother; perhaps in course of time the mother will find her children outstripping her in the race for knowledge. But at least in her encouragement and confidence in his ability, the mother may still direct her son's studies in a helpful and practical manner. (The present writer knows of a mother who studied along with her daughter right up to the University—though there are not many mothers like her, it has to be admitted!)

School life and home life are not divorced from each other, but are supplementary the one to the other. The results of proper co-ordination between them are seen in young men and women of sound common sense and good judgement, honest and upright, with the foundations of knowledge broad-based and able to exercise a discretion worthy of themselves and of the parents who brought them up.

J. B. FREEMAN

## DISCIPLINE: OLD AND NEW

The older and perhaps more orthodox view of discipline was punitive rather than reformatory in character. 'Spare the rod and spoil the child' was regarded almost as a self-evident proposition. Punishment and restrictions were everywhere in evidence in the administration of schools, and the schoolmaster was first and foremost a taskmaster. The English public schools of the early nineteenth century were most of them conducted according to the older conceptions of discipline. The interesting biography of Shelley by André Maurois gives a vivid picture of an English public school where discipline was maintained by ruthless flogging supplemented by a system of monitorship which placed a junior under the tyrannous and terrible care of a senior pupil.

Our conception of discipline reflects our view of the child and his psychology. If we consider he is naturally wicked, our discipline becomes punitive and rigorous. If our view is that children are naturally virtuous and that they are corrupted by the example of their elders, as Rousseau, in his *Émile*, maintains they are, then we blend sympathetic understanding with our discipline, and school is bereft of all its terrors. Midway between these views is Bertrand Russell's conception of discipline, which is the result of

his theory that children are by nature neither good nor bad, but are born with 'reflexes and a few instincts', out of which, by the action of their environment, habits are produced which may be either healthy or morbid. This view has the support of eminent educational psychologists, and experience as well as experiments lend it their support.

The environment being of vital importance according to this conception of discipline, how shall we create what may be regarded as a suitable environment? By seeing to it that the school is so organized that the greatest good to the greatest number results. That this may be the case it is necessary that the pupil should be free to act of his own volition and that restrictions should be reduced to a minimum. Slavery produces dullness and stupidity or sometimes a libertine spirit that breaks loose at the slightest provocation. The hard life of the old public school turned many a good boy into a truant—Shelley, for example. The aim of education should be to create an atmosphere of freedom and to inspire a sense of responsibility. Such an atmosphere flogging and repression always fail to produce, though parents and guardians continue to appraise the worth of a teacher according to his ability to rule by fear, being generally of the opinion that the martinet makes the best teacher.

According to the newer conceptions of discipline, corporal punishment should be but sparingly resorted to, and certainly not for such offences as inattention in class, which is as much the fault of the teacher as of the pupil, since the primary object of teaching is the creation of interest and a teacher who knows how to present his subject will not need the aid of the whip to secure the attention of his class. Diehards among teachers will no doubt protest that obstinacy can only be cured by flogging, but the safer and saner course would be to probe beneath the surface and to prescribe the remedy suggested by our diagnosis.

Children's instincts tell them whether they are loved or not, and from those who, they feel, are genuinely interested in their welfare they will submit to such restrictions as circumstances impose. Bertrand Russell warns teachers to keep a close watch on themselves to see that they do not derive 'a sadistic pleasure from the necessary element of discipline in education'. The motive for discipline must always be the development of character and intelligence. Rightly treated no abnormal case need ever be despaired of, and, in any case, where the scientific method fails, it is not probable that the crude method of physical intimidation will succeed. It was Dr Thomas Arnold of Rugby who first gave a new orientation to discipline by easing up to some extent the



rigours of the discipline of his day. This he did by giving the senior boys a certain degree of self-government. Except in cases of moral turpitude or habitual misconduct, he did away with corporal punishment altogether. At Santiniketan, as we know, the pupils are allowed the utmost freedom, consistent with the well-being of the community as a whole.

The atmosphere of a school should not naturally be that of a prison-house. The pupil should be made conscious of his own worth, and it is a mistake to make him feel and believe that he is helpless and should always be dependent upon another's will. Subject to proper guidance, every boy and girl should be taught to think and to act independently and to cultivate self-confidence and self-help. The purpose of discipline is to make men, and not machines in the old Spartan sense and that of the totalitarian state.

NIKHIL R. ROY

## THE EXPERIENCES OF AN ART MASTER

As art master I have first to create an interest in art and then to teach it. I do so by calling to mind how I myself got interested in art.

I was always getting into scrapes at school, because I was not interested in my lessons—the drawing lesson least of all—and ragged the masters, if I could. Very often I slipped away from the mathematics class, for I found greater attractions in a neighbouring park; and, like a good boy, got back home at the usual hour. But soon my parents got to know of my escapades, and the fat was then in the fire.

One thing I was really interested in, and that was modelling funny dolls and animals in clay. I was also interested in a box of paints given me by my sister as a birthday present, for colours of all kinds attracted me. For hours I would sit splashing paint on sheets of paper purloined from my father's desk and producing the most awful daubs.

Meanwhile this is what happened at school. The drawing master was a tall, fat man with a smiling face. I was afraid of him, because he pinched very hard if I forgot to bring the right sort of rubber, pencil, or drawing book to class. But one day, instead of drawing the usual geometrical figure we were set to draw, I drew a fat smiling face with its characteristic moustache. The boys near me began to giggle, and this attracted the attention of the master. Calling me up, he snatched the drawing book out of my hand, and punched me in the stomach for daring to

caricature him. This proved a tragic damper on my budding interest in art, for I used every means at my disposal to cut the drawing class.

The drawing master of my next school was a small quiet man with a small beard. Noise was what he hated, so that if we made no noise all was well, and art could look after itself. Having drawn the day's figure on the blackboard, he would walk up and down the room with his left hand tucked away under his right arm in a most comical manner. One day this proved too much for me, and I drew the funny object in its characteristic pose. But the quiet master proved to be more observant than I had given him credit for being, for he spotted my drawing before I had completed it, and ordered me out of the class. Here was another damper on my interest in art.

But now another change of school came. At the new school, besides drawing, paper-cutting and carpentry were taught under 'handwork', and there was a manuscript magazine conducted by the boys. Because I was good at sketching, the magazine was handed over to me to conduct, and I illustrated stories and poems, for which I received not rough handling but praise and encouragement from boys and masters alike. For the first time I felt that I could do something that others appreciated, and this had the effect of changing my attitude towards school and lessons. It put me on my mettle, and I determined to do what I could to be somewhere up to the standard of the class. This was how I passed my final examination—all on account of a manuscript magazine!

While I was in this frame of mind, I was sent to Santiniketan. I was sent there because I had insisted on going there, hoping to take advantage of the Art Department ('Kala Bhavan'). Santiniketan is a place where everybody leads a very simple life, eats simple food and dresses very simply. There are many departments of Indian culture. Tagore himself lives there, and used occasionally to take classes. I found the place very interesting, and felt free so far as my artistic career was concerned. All day long I found something interesting to do, which was to me a new experience. Music plays an important part in the life of the community. Early in the morning a party of musicians goes round singing devotional songs, and the day ends with song. At night, after supper, the musicians again go round the *ashrama*, singing a melodious song which seems to spread peace and calm around, so that the worries of the day are forgotten as one lies down to rest. We were not afraid of our masters at Santiniketan. They mixed freely with us, which gave us a new outlook on life. Here I felt I could express fully whatever I felt and wanted to do. I took up art as

my best spare time hobby, and, almost insensibly, to be an artist became the foremost ambition of my life.

My parents did not like the idea of my becoming an artist, and my father threatened to stop my monthly allowance if I persisted in wanting to become one. But I stuck to my guns. I left home with a Gujarati friend, and wrote the following note to my father: 'I am going to Gujarat. I shall come back and become a full-fledged art student at Santiniketan, if you care to give me an allowance to complete my course there. . . . I will never ask for a single pice from you as soon as I come out after completing my course. For the present I shall be staying in Baroda for some time with my friend. You need not worry about me at all.' I had made up my mind not to be dictated to by anyone in the choice of my profession. I wanted to be an artist because I was naturally inclined towards art.

After two months my father gave in, and asked me to come back, saying that he was ready to continue my allowance to enable me to finish my art course. So to Santiniketan I returned, and began my life's work in right earnest. I made a name for myself as a good student, and within three years finished the prescribed course of instruction.

Then began the hard struggle for existence. I painted several pictures, and with my paintings toured nearly all over India as economically as possible. Occasionally I sold a painting or two, which met my expenses. I visited all the art centres and places of historical interest. Whenever opportunity offered, I exhibited my works, but, all things considered, the three years I spent travelling from place to place were no joy-ride, for sometimes I went without food, though nobody knew it.

My touring over, I went to Bombay, still hard up, though with letters of introduction with me. It was summer, and it was very tiring work taking my paintings around with me from place to place somewhat like a Chinese hawker with his pack of silk. For three or four days I did not sell a single picture, and had visions of being stranded in Bombay without any money. But my fairy godmother came in the guise of a rich man interested in art, who bought three of my fairly large paintings. This gave me a start, and I stayed in Bombay for about six months, visiting the Elephanta, Ajanta and Ellora caves, those masterpieces of ancient art.

But I had grown tired of touring, and longed for peace and rest. So I took a small flat in a Bombay suburb, and began to paint. I did not, however, stay long here, for I was appointed art master of the Scindia School, Gwalior, and was called upon

to reorganize the Art Department. Thus began my career as art master.

To express myself with brush and chisel is my vocation in life, for art is neither more nor less than expression, whatever the medium; and as art master I have tried—my experience having been what it was—not so much to teach (in the dull, didactic sense) as to induce the right atmosphere and furnish opportunities for self-expression. That my pupils' early attempts at self-expression have sometimes been crude has not disconcerted me, for time and again I have seen beauty evolved out of crudity.

SUDHIR R. KHASTGIR

## CORRESPONDENCE

### *To the Editor of TEACHING*

SIR,—I have gone through the article, 'Sex Differences in the Binet Intelligence Score of Indian Children', published in your September issue with great care. The writer of the article seems to be labouring under a wrong impression and misleading others.

The intelligence of a child, he thinks, can be improved, whereas such improvement as is observable is not continuous. A child, as we know, is born with a certain degree or type of intelligence, which grows in acuity, but after a certain age remains static. The difference in aptitude which we observe in any two children is due to a difference in natural or inherited intelligence, as well as to knowledge acquired as the result of experience and instruction—'achievement', as it is called. In the article under reference the difference was not in 'intelligence' but in 'achievement', and was due to the fact that the tests were more suited to boys than to girls, both in their appeal and the experience they drew upon. To take another illustration, suppose we are testing the intelligence of boys, half of whom come from villages and half from cities. If our tests are taken entirely from city life, the urban boys are likely to do better than the rural. From this fact we must not jump to the conclusion that the city boys are superior in intelligence to the village boys, when in point of intelligence (as distinct from achievement) the latter might, as a matter of fact, be superior to the former.

That the writer arrived at a conclusion agreeable to persons of a particular persuasion should not blind us to the fact that he bases his conclusion on faulty data.

Zilla School  
Dinajpur (Bengal)

S. C. SARKAR, M.A., B.T.,  
Teacher

## BOOK REVIEWS

*The Activity Programme in Indian Education.* By J. T. RAJANAYAGAM. Cr. 8vo, pp. viii+192, Rs. 2. Christian Literature Society for India. 1939.

This book explains the principles and technique of the Project Method. It is divided into three parts, and there is an appendix and a bibliography. Part I deals with the psychological foundations of the project philosophy of education, and, as might be expected, there is little that is new in this section. Part II contrasts the Project Method with traditional methods of education, clears up some misconceptions regarding the method, describes its aims and implications and finally deals with the framing of a curriculum along 'project' or 'activity' lines. This is the most interesting and valuable part of the book. From the examples given of what can be done through project work, the reader gets a good idea of the value of the Project Method and of the scope of the work that may be done by means of projects. Part III deals with the administration of a project school.

The author is a project enthusiast, and perhaps his enthusiasm makes him overlook some of the practical difficulties that the Project Method presents. One feels that he does not meet the doubt expressed by Mr Champion in his introduction to the book when he says that a teacher will hesitate to commit himself to a system which goes to the extreme of ignoring 'altogether the curriculum as a body of organized learning material'. One feels also that he does not face up to the difficulty caused by the fact that each project is supposed to arise out of the children's needs and that these needs may not provide a sufficient basis for a curriculum. However, teachers and students in training will find this a most interesting and useful book. It can be strongly recommended to all who are interested in improving primary education—and perhaps even more to those who are not; for undoubtedly progress in primary education will come along 'project' lines.

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*Education and Village Improvement.* By I. W. MOOMAW. Cr. 8vo, pp. xiv + 166. Oxford University Press, Rs. 2. 1939.

Within the pages of this slim volume Mr Moomaw has managed to pack a great deal of practical wisdom. In her foreword Miss Van Doren, former Educational Secretary of the National Christian Council, says with justice:

'The author combines a thorough knowledge of agriculture and rural science obtained in the West with years of practical experience in an Indian agricultural and vocational school. The result is that these chapters are written with a genuine background of Indian life and thought. Too many books by Europeans leave the impression of being chunks of unassimilated Western material; in this, however, every page

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### COMMON BOOK SIZES:

Crown 8vo, $7\frac{1}{2} \times 5$ in.	Demy 8vo, $8\frac{3}{4} \times 8\frac{5}{8}$ in.	Imp. 16mo, $7\frac{1}{2} \times 5\frac{1}{2}$ in.
Crown 4to, $10 \times 7\frac{1}{2}$ in.	F'cap 8vo, $6\frac{3}{4} \times 4\frac{1}{2}$ in.	Pott 8vo, $6\frac{1}{4} \times 3\frac{3}{4}$ in.

carries vivid marks of first-hand experience, and is "dyed in the wool" with the local colour of the Indian countryside.'

One feels on putting down this book that the author has examined in brief but vital form the main problems of Indian agriculture in relation to its present conditions and future possibilities as well as to the social, economic and educational life of the rural population. He touches on such problems as rural population groups, education and the rural mind, rural indebtedness, cottage vocations, agriculture and the village school, co-operation and thrift, and farming as an occupation for Indian youth. Concerning the last question he says: 'A young man of good character with suitable education, initiative and a love for Nature can find profitable and genial employment in agriculture. Seasons are sometimes irregular and the work is often exacting and difficult, yet a young man of industry and intelligence can earn a satisfactory living for himself and family and enjoy some privileges which he would not have in the city.' No doubt this is true, as those who have tasted of the charm of rural life will testify, but it is not enough to prevent young men from leaving the villages to seek employment in the already overcrowded professions of the town. Mr Moomaw seems to recognize this when he is dealing with village education. Thus in his chapter on 'Agriculture and the Village School' he affirms: 'The teacher must rely on the farmer for the support of his school. The farmer must look to the school for life-giving knowledge to be poured into the village through his children. *Improvement of rural life usually begins when the village teacher and the people take up the task jointly.*' In other words it is the job of education to lead the way in rural renaissance and thereby to show boys and girls that their happiness and prosperity lie in a re-born village life that can have its own simple culture and entertainments in a way that is impossible in a modern city with its artificiality and extravagance.

Throughout the book there is a sense of reality that is never thrust aside in favour of utopian schemes. For instance, in supporting the case for village industries, Mr Moomaw realizes that there is no use in trying to return to medieval conditions.

'India has already travelled far toward industrial development. People well understand the advantages of the machine. Goods thus made are often cheaper. Cloth, tape and rope are usually more evenly and beautifully woven by machine. . . . Much of the work once performed by hand is now done by machines.' Therefore he advises that 'one of the first services of education is to make village craftsmen conscious of inevitable changes and the need for adjustment. We are not concerned with what cottage vocations were in the past, but with the place they hold today.'

These quotations will serve to show both the realism and the progressiveness of the author. The book in no way pretends to take the place of such standard works as those of Brayne, Darling, De Mello and others. Its basic theme seems to be educational. 'Through suitable education we uncover springs that lie hidden, even in backward villages' is the note that recurs again and again in various guises, and dependent on it is the idea that real rural reconstruction lies in the task of initiating the rural population into the mysteries of self-help through the development of character, the inspiration of religion and the striving 'for a true agrarian democracy, free from caste and feud, where co-operation is the manner of life and where the life of each one is cherished and preserved'.

The book contains a good bibliography and index, and should be of

great help to all those who want to know something about rural India and to take some practical steps to revivify it.

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*The Craft of Composition.* By J. L. HARDIE, M.A., ED.B. Book I, Cr. 8vo, pp. 110, As. 14; Book II, Cr. 8vo, pp. 176, Re. 1-1. Geo. G. Harrap & Co. 1938.

The basis of this book was a series of broadcast talks on English composition given to schools on the invitation of the Scottish branch of the B.B.C. It is essentially a pupil's book, and is written from the pupil's point of view—with all the skill of an accomplished teacher. It was planned and written so that pupils could work along individual lines, and the material be easily divided into appropriate 'assignments' which pupils could 'contract' to do. A novel feature is the inclusion of a considerable number of essays written by pupils themselves, which have been selected to illustrate teaching points. The treatment is thoroughly practical and such as to give the pupil a real insight into the art of writing. 'There is an art in *seeing* as well as in *saying*, and what you have seen clearly you must try to express clearly', writes the author towards the close of Book II. He bids the pupil compare the first of the following sentences with the second, and points the moral that by the use of concrete and particular terms a clearer picture is gained:

They came down the road in an old vehicle drawn by two beasts.

The farmer and his son jogged down the country lane in an old dray-cart drawn by a pair of mules.

He goes on: 'You know how, when you see a boy who has a crafty or sly way of getting the better of others, you say "he is as cunning as a fox". Behind the boy, as it were, you see the picture of the animal that is well known for its cunning. Similarly, if you think of a brave boy, what picture would you see? A lion. And you might say of him "he is as brave as a lion".' In this practical way the subject of 'figures of speech' is introduced, and the pupil sees for himself that similes 'are useful in written composition because they can do more than the mere adjective or adverb to make your picture clear and interesting'. Though written primarily for the pupil, the books are teachers' books as well, because they illustrate in the concrete and in a most refreshing manner how each type of written work should be presented if insight into the technique of writing is to be acquired—and, with such insight, genuine appreciation of good writing.

\* \* \* \* \*

*Civic English.* By C. M. BENNETT and H. R. BENNETT. Imp. 16mo. Book I, pp. 128; Book II, pp. 128. 1s. 6d. each. A. & C. Black. 1939.

We are told that the average pupil (including the university student) requires only a 'practical knowledge' of English. Though not altogether vague, the expression is not helpful in giving no hint as to how the teacher should modify his teaching so as to make it more practical in bias. Poetry, it has been said, is the portal into the realm of beauty and much else besides which the ordinary mortal does not or is reputed not to concern himself with. It is not the language of poetry and of literature generally so much as the point of view of great writers that proves disconcerting to the ordinary man. That is to say, subject-matter rather

than language determines the 'practicality' of any piece of writing. If this is so, then the writers of the books under review have successfully demonstrated how a practical bias may be given to the teaching of English at the school stage, and teachers of English in India who wish to give such a bias to their teaching would do well to examine the books, which have been drawn up on sound lines. Here are some of the topics dealt with in Book I: At the Post Office, Something for Sale, Emergencies, Holidays, The Public Library.

\* \* \* \* \*

*Here and There in India.* By C. A. PARKHURST. Illustrated by Satish Sinha. Twelve titles. Cr. 8vo. 16 to 28 pages. As. 1½ to 3. Macmillan & Co., 1939.

Perhaps nothing better in supplementary reading has been produced than these brightly written and well illustrated little books on important places in India. Paper and printing are good, and there are a few exercises to test the efficiency of one's reading. The books deserve to be extensively used.

\* \* \* \* \*

*Study Readers.* By CYRIL MODAK, M.A. Crown 8vo. Book I, pp. vi + 100, As. 8. Book II, pp. vi + 104, As. 10. Book III, pp. viii + 118, As. 10. Longmans, Green & Co. 1938.

These readers for the lower forms of secondary schools provide in each lesson a short text for the intensive study of the language without any explanatory notes. A few poems are given in Books II and III. The books have been carefully edited, and employ what the preface calls a 'living vocabulary'. They have been planned for individual study, and are the result of actual experiment in class. The reading matter is interesting, and the diction simple and natural. The assignments are graded in point of difficulty, and include almost every type of exercise. The books should prove useful as class readers in secondary schools for the careful study of English.

\* \* \* \* \*

*In England.* By S. G. DUNN, M.A., Litt.D. Cr. 8vo, pp. viii + 114, As. 12. Macmillan & Co. 1938.

This pleasantly written book is an attempt to supply a substitute, however inadequate, for a visit to England. It is well illustrated, and provides much of the background for a fuller understanding of the literature read in schools and colleges. Too often, as Dr Dunn points out, our pupils fail to understand what they read, or to gather any pleasure from their reading, because they know nothing of 'the atmosphere or setting of English life'. The book would make a good supplementary reader in a pre-matriculation class. The style of writing is simple and a model for imitation by high school pupils.

\* \* \* \* \*

*Heat.* By R. G. MITTON. Cr. 8vo, pp. viii + 330. J. M. Dent & Sons. 6s. 1939.

Dr Mitton has written a typically modern book on heat. His aim is to present an outline of our knowledge of the subject as it stands at the present day. Ordinarily college textbooks are not absolutely up-to-date, but Dr Mitton has included in his book Andrade's recent theory



of the viscosity of liquids (1934). Besides providing the usual material, he has discussed in a lucid way such topics as the probability conception of entropy and the calculation of the temperature of the atmosphere as a function of height. The book contains 15 chapters with 189 sections, and the sections in each chapter are numbered according to the index system. The sections which may be omitted in the first reading and the more advanced parts of the subject are suitably grouped together. Students unfamiliar with the calculus will find no difficulty in understanding the less advanced sections. The book contains 240 problems selected from past examination papers of many universities and examining bodies. There are a few worked-out examples. An appendix includes a list of 66 dates of the principal discoveries mentioned in the book and a list of useful original papers, which students of university classes may read with profit after mastering the relevant pages of this book. There are 130 clear-cut line diagrams. Many physical ideas have been explained with great care and lucidity, often by the use of diagrams of single molecules. Answers are given to the problems included in the book. There is a useful index of six pages. The book will be found very useful by physics students of the pass and honours courses of Indian universities.

\* \* \* \* \*

*Oxford Pamphlets on World Affairs.* By various authors. 30 titles, Cr. 8vo, pp. 32. 3d. each. Oxford University Press. 1939-40.

These pamphlets are a series of short accounts of current international topics written by expert historians, economists, lawyers and scientists in simple language for the man in the street. That they fulfil this aim, concisely and impartially, has already been acknowledged and they are indispensable to the average interested newspaper reader. A set, in fact, should be in every school library for ready reference.

Of the thirty odd titles published so far, unquestionably the most useful to the average high school student is *An Atlas of the War*. In fifteen maps and as many pages of explanatory text, the main problems of the war, in which geography plays so large a part, are displayed clearly and diagrammatically. The maps include America (indicating the extent of the German, British and French imports) and the Western Front and give detailed economic information. Further titles which are particularly useful to schools include *The Fourteen Points and the Treaty of Versailles*, *Colonies and Raw Materials*, *The Baltic*, *The Danubian Basin*, *Turkey*, *Greece and the Eastern Mediterranean*. This last pamphlet has particular interest for Muslim schools.

The remaining titles deal with subjects rather outside the interests of the average matriculation student, and in certain cases assume a background of knowledge which he has not yet acquired. Some however have a strong general interest, such as *Herr Hitler's Self-Disclosure in Mein Kampf* and *Who Hitler Is*. Even in India it seems we cannot escape this creature. For those whose mother-tongue is Urdu or Gujarati we understand that the publishers are bringing out translations of *An Atlas of the War* and one or two other suitable titles.

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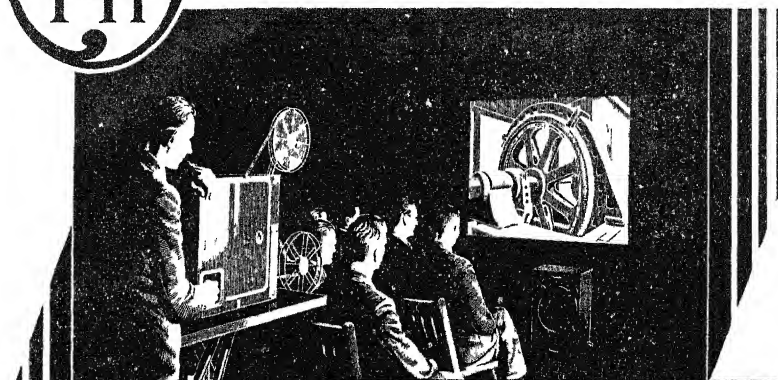
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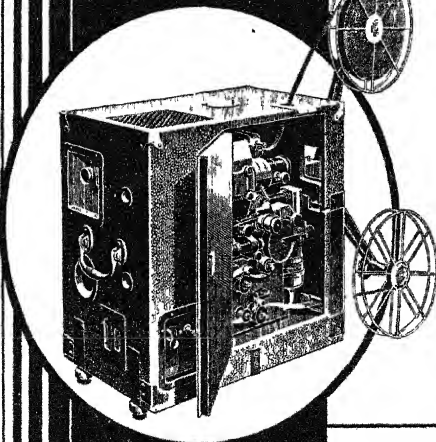


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